An **application** in Java is a free-standing program with a method called main(). It is compiled with the **javac** command. The resulting bytecode are interpreted and executed by the **Java Virtual Machine** (JVM) using the **java** command. The name of your source (.java) file will have the same name as the class that contains main().

C:\Temp>javac Demo.java   // calls the Java compiler to create bytecode (.class file)
C:\Temp>java Demo   // calls the JVM to interpret and execute bytecode

An **applet** is a Java program embedded in a Web page. It is not a stand-alone application – there is no Java Virtual Machine (JVM) to run it. An applet must be executed in a container – either a browser or an appletviewer.

An applet has no main() method. Instead, the applet inherits from the **JApplet class** in the **javax.swing package**. The **JApplet** class contains over 200 methods that can be inherited by an applet. Some of the more common methods are:

init – called only once after the applet is created and used to initialize variables and graphics components. Always called first.

start – called when the applet becomes visible in the browser window. This may happen when you scroll into view, minimize, or maximize the window. It will call the paint method to draw.

paint – called when the applet's window needs to be redrawn or redrawn.

stop – called when the applet becomes invisible, such as when you scroll out of view.

destroy – called once when the browser has closed the applet's page.

To create an applet, you also need an **html** file that has the same name as your source file with a **.html** extension. It must contain the name of your .class file and the size (width and height in pixels) of the applet window. You must compile the .java source file and run the bytecode (.class file) in either a browser or the appletviewer.

C:\Temp>javac MyApplet.java   // calls the Java compiler to create bytecode (.class file)
C:\Temp>appletviewer MyApplet.html   // uses the appletviewer to execute the bytecode

html files are most easily created in Notepad or WordPad. For example, **MyApplet.html:**
<html>
<applet code = "MyApplet.class" width = "300" height = "50">
</applet>
</html>

Note: if your .java file compiles with no errors and your applet doesn't run, check your .html file for errors.